

IN THE CLAIMS

The current claims for this application are listed below.

1. (Canceled)
2. (Currently amended) ~~A method as in claim 1 further comprising~~ A digital processing implemented method for processing a data set enabling interactive random access for different views of an object, said method comprising:
 - storing a plurality of frames of said object, said plurality of frames representing a set of views of said object;
 - assigning a reference number to each of said plurality of frames;
 - arranging said plurality of frames in a preferred layout; and
 - dividing said preferred layout into a plurality of blocks having frames sharing spatial similarities and compressing each of said plurality of blocks separately;
 - selecting at least one key frame and a plurality of non-key frames for each of said plurality of blocks; and
 - compressing each of said non-key frame and said key frame for each of said plurality of blocks separately such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

3. (Original) A method as in claim 2 wherein a longest compressing path of any one of said non-key frames and said key frame is less than a predetermined number of frames from said key frame.
4. (Original) A method as in claim 3 further comprising including a video track layout for said set of views, said video track layout making references to a data source track, said data source track to comprise compressed data for said set of views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.
5. (Original) A method as in claim 4 wherein each of said video track, wherein at least one key frame is near a center of each of said plurality of blocks.
6. (Original) A method as in claim 5 wherein each of said plurality of blocks has a size that is one of equal to a predetermined size and smaller than said predetermined size.
7. (Original) A method as in claim 6 wherein said preferred layout is a two-dimensional array.

8. (Original) A method as in claim 7 further comprising:
dividing said preferred layout such that a smaller size block is at a further top and
a further left corner of said preferred layout and a larger size block is at a
further bottom and a further right corner of said preferred layout; and
selecting said at least one key frame such that said at least one key frame is closer
to a further top and a further left corner of each of said plurality of blocks.
9. (Original) A method as in claim 8 wherein a frame differencing compression
method is used to compress each of said plurality of blocks separately.
10. (Canceled)
11. (Canceled)
12. (Original) A method as in claim 9 wherein said method is performed by a
server computer system.
13. (Original) A method as in claim 12 wherein said method is performed by a
world-wide web server.

14. - 18. (Canceled)

19. (Currently amended) ~~A method as in claim 14~~ A digital processing implemented method for receiving and using a data set enabling interactive random access for different views of an object, said method comprising:

transmitting a request to receive said data set, said data set including frames of
said object, said frames representing views of said object; and
receiving said data set wherein said frames were arranged in a preferred layout,
said preferred layout was divided into a plurality of blocks wherein each of said
plurality of blocks was compressed separately and wherein said data set further
comprises at least one key frame and a plurality of non-key frames for each of
said plurality of blocks, each of said at least one key frame was compressed prior
to said non-key frames such that a compressing sequence includes going away
from said key frame until reaching a boundary of each of said plurality of blocks
to cover each of said non-key frames.

20. (Original) A method as in claim 19 wherein said preferred layout, said
plurality of blocks, said at least one key frame, and said plurality of non-key frames were

arranged such that a longest compressing path of any one of said non-key frames and said key frame is less than a predetermined number of frames from said key frame.

21. (Original) A method as in claim 20 wherein said data set further comprising a video track layout for said views, said video track layout making references to a data source track, said data source track including compressed data for said views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

22. (Original) A method as in claim 21 wherein each of said at least one key frame is near a center of each of said plurality of blocks.

23. (Original) A method as in claim 22 wherein each of said plurality of blocks has a size that is one of equal to a predetermined size and smaller than said predetermined size.

24. (Original) A method as in claim 23 wherein said preferred layout is a two-dimensional array.

25. (Original) A method as in claim 24 wherein said preferred layout is divided such that a smaller size block is at a further top and a further left corner of said preferred layout and a larger size block is at a further bottom and a further right corner of said preferred layout and wherein said at least one key frame is closer to a further top and a further left corner of each of said plurality of blocks.

26. (Original) A method as in claim 25 wherein said method is performed by a digital processing system and wherein said data set is received from a server computer system.

27. (Original) A method as in claim 26 wherein a frame differencing compression method is used to separately compress each of said plurality of blocks.

28. (Canceled)

29. (Currently amended) ~~A computer readable storage medium as in claim 28 further comprising~~ A computer readable storage medium containing executable computer program instructions which when executed cause a digital processing implemented method for processing a data set enabling interactive random access for different views of an object, said method comprising:

storing a plurality of frames of said object, said plurality of frames representing a
set of views of said object;
assigning a reference number to each of said plurality of frames;
arranging said plurality of frames in a preferred layout; and
dividing said preferred layout into a plurality of blocks having frames sharing
spatial similarities and compressing each of said plurality of blocks separately;
selecting at least one key frame and a plurality of non-key frames for each of said
plurality of blocks; and
compressing each of said non-key frame and said key frame for each of said
plurality of blocks separately such that a compressing sequence includes going away
from said key frame until reaching a boundary of each of said plurality of blocks to cover
each of said non-key frames.

30. (Original) A computer readable storage medium as in claim 29 wherein said
dividing said preferred layout into a plurality of blocks and said selecting at least one key
frame and a plurality of non-key frames for each of said plurality of blocks are such that a
longest compressing path of any one of said non-key frames and said key frame is less
than a predetermined number of frames from said key frame.

31. (Original) A computer readable storage medium as in claim 30 further comprising including a video track layout for said set of views, said video track layout making references to a data source track, said data source track to comprise compressed data for said set of views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

32. (Original) A computer readable storage medium as in claim 31 wherein each of said video track at least one key frame is near a center of each of said plurality of blocks.

33. (Original) A computer readable storage medium as in claim 32 wherein each of said plurality of blocks has a size that is one of equal to a predetermined size and smaller than said predetermined size.

34. (Original) A computer readable storage medium as in claim 33 wherein said preferred layout is a two-dimensional array.

35. (Original) A computer readable storage medium as in claim 34 further comprising:

dividing said preferred layout such that a smaller size block is at a further top and a further left corner of said preferred layout and a larger size block is at a further bottom and a further right corner of said preferred layout; and selecting said at least one key frame such that said at least one key frame is closer to a further top and a further left corner of each of said plurality of blocks.

36. (Original) A computer readable storage medium as in claim 35 wherein a frame differencing compression method is used to compress each of said plurality of blocks separately.

37. (Canceled)

38. (Original) A computer readable storage medium as in claim 36 wherein said method is performed by a server computer system.

39. - 43. (Canceled)

44. (Currently amended) ~~A computer readable storage medium as in claim 43~~ A computer readable storage medium containing executable computer program instructions which when executed cause a digital processing implemented method for receiving and

using a data set enabling interactive random access for different views of an object, said method comprising:

transmitting a request to receive said data set, said data set including frames of said object, said frames representing views of said object; and
receiving said data set wherein said frames were arranged in a preferred layout, said preferred layout was divided into a plurality of blocks wherein each of said plurality of blocks was compressed separately wherein an input is used for manipulating said object using a cursor which is display on a display device;

receiving said input which requests a selected number of said views;
mapping said input to a selected appropriate frames in said frames; and
decompressing said selected appropriate frames;
storing said appropriate frames that are compressed; and
allowing a user to playback said selected number of said views in a movie-like sequence wherein said method is performed by a digital processing system wherein said data set is received from a server computer system and wherein said data set further comprises at least one key frame and a plurality of non-key frames for each of said plurality of blocks, each of said at least one key frame was compressed prior to said non-key frames such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

45. (Original) A computer readable storage medium as in claim 44 wherein said preferred layout, said plurality of blocks, said at least one key frame, and said plurality of non-key frames were arranged such that a longest compressing path of any one of said non-key frames and said key frame is less than two frames from said key frame.

46. (Original) A computer readable storage medium as in claim 45 wherein said data set further comprising a video track layout for said views, said video track layout making references to a data source track, said data source track including compressed data for said views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

47. (Original) A computer readable storage medium as in claim 46 wherein each of said at least one key frame is near a center of each of said plurality of blocks.

48. (Original) A computer readable storage medium as in claim 47 wherein each of said plurality of blocks has a size that is one of equal to a predetermined size and smaller than said predetermined size.

49. (Original) A computer readable storage medium as in claim 48 wherein said preferred layout is a two-dimensional array.

50. (Original) A computer readable storage medium as in claim 49 wherein said preferred layout is divided such that a smaller size block is at a further top and a further left corner of said preferred layout and a larger size block is at a further bottom and a further right corner of said preferred layout and wherein said at least one key frame is closer to a further top and a further left corner of each of said plurality of blocks.

51. (Original) A computer readable storage medium as in claim 50 wherein said method is performed by a digital processing system and wherein said data set is received from a server computer system.

52. (Original) A computer readable storage medium as in claim 51 wherein a frame differencing compression method is used to separately compress each of said plurality of blocks.

53. (Canceled)

54. (Currently amended) ~~A system as in claim 53 further comprising~~ A digital processing system for processing a data set enabling interactive random access for different views of an object, said system comprising:

means for storing a plurality of frames of said object, said plurality of frames

representing a set of views of said object;

means for assigning a reference number to each of said plurality of frames;

means for arranging said plurality of frames in a preferred layout; and

means for dividing said preferred layout into a plurality of blocks having frames sharing spatial similarities and compressing each of said plurality of blocks separately;

and

means for selecting at least one key frame and a plurality of non-key frames for each of said plurality of blocks and means for compressing said at least one key frame prior to compressing non-key frames such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

55. (Original) A system as in claim 54 wherein said dividing said preferred layout into a plurality of blocks and said selecting at least one key frame and a plurality of non-key frames for each of said plurality of blocks is such that a longest compressing

path of any one of said non-key frames and said key frame is less than a predetermined number of frames from said key frame.

56. (Original) A system as in claim 55 further comprises means for including a video track layout for said set of views, said video track layout making references to a data source track, said data source track to comprise compressed data for said set of views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

57. - 60. (Canceled)

61. (Currently amended) ~~A system as in claim 60~~ A digital processing implemented system for receiving and using a data set enabling interactive random access for different views of an object, said system comprising:

means for transmitting a request to receive said data set, said data set including

frames of said object, said frames representing views of said object; and

means for receiving said data set wherein said frames were arranged in a preferred layout, said preferred layout was divided into a plurality of blocks wherein each of said plurality of blocks was compressed separately wherein an input is used for manipulating said object using a cursor which is displayed on a display device;

means for storing said appropriate frames that are compressed; and
means for allowing a user to playback said selected number of said views in a
movie-like sequence wherein said data set further comprising at least one key frame and a plurality of non-key frames for each of said plurality of blocks, each of said at least one key frame was compressed prior to said non-key frames such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

62. (Original) A system as in claim 61 wherein said preferred layout, said plurality of blocks, said at least one key frame, and said plurality of non-key frames were arranged such that a longest compressing path of any one of said non-key frames and said key frame is less than two frames from said key frame.

63. (Original) A system as in claim 62 wherein said data set further comprising a video track layout for said views, said video track layout making references to a data source track, said data source track including compressed data for said views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

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